

WHAT IS CLAIMED IS:

1. A nipple aspirate fluid aspiration device, comprising:  
an adjustable support, defining a concavity;  
at least one inflatable bladder within the concavity; and  
a vacuum source in communication with the concavity.
2. A nipple aspirate fluid aspiration device as in Claim 1, wherein the support comprises a plurality of petals, movable throughout an adjustment range.
3. A nipple aspirate fluid aspiration device as in Claim 2, wherein each petal carries an inflatable bladder.
4. A nipple aspirate fluid aspiration device as in Claim 1, further comprising a heat source.
5. A nipple aspirate fluid aspiration device as in Claim 4, wherein the heat source is in thermally conductive contact with the bladder.
6. A nipple aspirate fluid aspiration device as in Claim 4, further comprising a fluid circulation pathway for circulating a fluid through the bladder.
7. A nipple aspirate fluid aspiration device as in Claim 6, wherein the heat source is in thermally conductive contact with the fluid so that the fluid heats the bladder.
8. A nipple aspirate fluid aspiration device as in Claim 6, comprising at least three inflatable bladders, in fluid communication with the circulation pathway.
9. A nipple aspirate fluid aspiration device as in Claim 1, further comprising a control for inflating and deflating the bladder in accordance with a predetermined program.
10. A nipple aspirate fluid aspiration device as in Claim 9 wherein the predetermined program comprises alternating inflation and deflation cycles.
11. A nipple aspirate fluid aspiration device as in Claim 10 wherein the predetermined program inflates the bladder within the range of from about 2 to about 40 cycles per minute.
12. A nipple aspirate fluid aspiration device as in Claim 11 wherein the predetermined program inflates the bladder within the range of from about 3 to about 12 cycles per minute.

13. A nipple aspirate fluid aspiration device as in Claim 10 wherein the predetermined program maintains the bladder inflated within the range of from about 4 to about 8 seconds per cycle.

14. A nipple aspirate fluid aspiration device as in Claim 1, wherein the bladder is inflatable from a reduced profile along an axis transverse to the support and an inflated profile along the axis.

15. A nipple aspirate fluid aspiration device as in Claim 14, wherein the bladder has a maximum thickness in the inflated profile along the axis within the range of from about .2 inches to about 2.0 inches.

16. A device for obtaining an intraductal fluid sample from a non lactating breast, comprising:

a frame;

at least one support on the frame, having a first side for facing in the direction of a patient when in use;

a moveable wall positioned in between the support and the patient when in use; and

a disposable patient interface positioned between the movable wall and the patient, for contacting the patient when in use.

17. A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 16, comprising at least three supports.

18. A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 17, wherein the supports are moveable throughout an adjustment range.

19. A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 18, further comprising a control, for controlling the adjustment.

20. A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 19, wherein the control comprises a rotatable ring.

21. A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 18, wherein each support has a proximal end in the direction of the frame, and a distal end in the direction of the patient, and the distal ends form an annular distal limit which

is moveable between a first, small diameter and a second, large diameter at the limits of the adjustment range.

22. A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 21, wherein the first diameter is within the range of from about 2.5 inches to about 4.5 inches.

23. A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 21, wherein the second diameter is within the range of from about 3.5 inches to about 6.5 inches.

24. A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 17, wherein the movable wall comprises a wall on an inflatable bladder.

25. A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 24, comprising an inflatable bladder carried by each of the supports.

26. A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 16, wherein the disposable patient interface comprises a flexible membrane.

27. A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 26, wherein the flexible membrane comprises a tubular body having a proximal end with a first diameter and a distal end with a second, larger diameter.

28. A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 27, further comprising a releasable connector on the proximal end.

29. A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 26, wherein the flexible membrane comprises a low durometer thermoplastic elastomer.

30. A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 16, further comprising a heat source in thermal communication with the movable wall.

31. An intraductal fluid breast pump, comprising:  
a support, having a concave side;  
a plurality of inflatable bladders carried on the concave side of the support;  
a vacuum source in communication with the concave side of the support; and  
a pressure source in communication with the bladders.

32. An intraductal fluid breast pump as in Claim 31, further comprising a controller for automatically controlling the pressure source.

33. An intraductal fluid breast pump as in Claim 31, wherein the support comprises a plurality of movable components.